UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO.   | FILING DATE    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|----------------|----------------------|---------------------|------------------|
| 10/590,250  | 08/17/2006     | Anthony P. Hollander | 207,768             | 7329             |
| Jay S Cinamon   | 7590 11/25/200 | EXAMINER             |                     |                  |
| AbelmanFrayne   | e & Schwab     | DAVIS, RUTH A        |                     |                  |
| 666 Third Avenue<br>10th Floor<br>New York, NY 10017-5621 |                |                      | ART UNIT            | PAPER NUMBER     |
|   |                |                      | 1651                |                  |
|   |                |                      |                     |                  |
|   |                |                      | MAIL DATE           | DELIVERY MODE    |
|   |                |                      | 11/25/2009          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|  | Application No.  | Applicant(s)  |  |  |  |  |
|--|--|---|--|--|--|--|
| Office Action Comments   | 10/590,250   | HOLLANDER ET AL.  |  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit  |  |  |  |  |
|  | Ruth A. Davis  | 1651  |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the c   | orrespondence address   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 16(a). In no event, however, may a reply be tim 11 apply and will expire SIX (6) MONTHS from 12 cause the application to become ABANDONE | Lely filed the mailing date of this communication. (35 U.S.C. § 133). |  |  |  |  |
| Status   |  |   |  |  |  |  |
| 1)⊠ Responsive to communication(s) filed on <u>07 Ju</u>   | lv 2009  |   |  |  |  |  |
|  | · · · <u> </u>   |   |  |  |  |  |
|  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is  |   |  |  |  |  |
|  | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  |   |  |  |  |  |
|  |  |   |  |  |  |  |
| Disposition of Claims  |  |   |  |  |  |  |
|  | Claim(s) <u>27-62</u> is/are pending in the application.   |   |  |  |  |  |
|  | 4a) Of the above claim(s) <u>27-50</u> is/are withdrawn from consideration.  |   |  |  |  |  |
| 5) Claim(s) is/are allowed.  |  |   |  |  |  |  |
| •  | 6)⊠ Claim(s) <u>51-62</u> is/are rejected.   |   |  |  |  |  |
| 7) Claim(s) is/are objected to.  |  |   |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.  |  |   |  |  |  |  |
| Application Papers   |  |   |  |  |  |  |
| 9)☐ The specification is objected to by the Examiner.  |  |   |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.   |  |   |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |  |   |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |  |   |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |  |   |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |   |  |  |  |  |
| <ul> <li>12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) ☒ All b) ☐ Some * c) ☐ None of:</li> <li>1. ☐ Certified copies of the priority documents have been received.</li> <li>2. ☐ Certified copies of the priority documents have been received in Application No</li> <li>3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage</li> </ul>  |  |   |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  |  |   |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |  |   |  |  |  |  |
|  | ·  |   |  |  |  |  |
| Attachment(s)  |  |   |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  |  |   |  |  |  |  |
| <ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO/SB/08)</li> <li>Paper No(s)/Mail Date 1/07</li> </ul>  | Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:  | ite   |  |  |  |  |
|  |  |   |  |  |  |  |

## DETAILED ACTION

## Election/Restrictions

1. Applicant's election without traverse of species B in the reply filed on July 7, 2009 is acknowledged.

Claims 50 - 62 are added and are drawn to the elected species. Claims 2 - 62 are pending; claims 27 - 50 are withdrawn as being drawn to non-elected subject matter; claims 51 - 62 have been considered on the merits.

## Claim Rejections - 35 USC § 112

- The following is a quotation of the second paragraph of 35 U.S.C. 112:
   The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 3. Claims 51 62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 51 and it dependents are drawn to a method for protecting a joint cartilage however are rendered vague and indefinite for reciting "essentially consisting of" as it is not a recognized transitional phrase. For purposes of examination, the phrase has been interpreted as "comprising".

In claim 52, line 2, "the aforementioned cellular components (b)" lacks sufficient antecedent basis.

Claims 52 – 54 are generally confusing for grammatical errors and are generally narrative and indefinite, failing to conform with current U.S. practice. They are replete with grammatical and idiomatic errors.

In claims 53, line 1, "in vitro cartilage tissue" lacks antecedent basis.

In claim 55, line 2, the recitation of "too" is confusing and is unclear to what it refers.

In claims 58, line 1, "HA" has not been first recited in parenthesis. In addition, "the HA derivative" lacks sufficient antecedent basis.

## Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1651

6. Claims 51 – 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angele et al. (WO 00/32251), cited via US 6767072.

Angele teaches methods for repairing (recovering and protecting) muscoskeletal defects (abstract), comprising implanting a matrix (biological material) (abstract) comprising hyaluronic acid esters such as benzyl esters (col.2 line 58-67) and chondrocytes and/or mesenchymal stem scells (col.4, line 7-13). The degree of esterification may vary (col.3 line 12-18), as can the form which may include a sponge or non woven tissue (col. 3 line 12-31).

The reference does not teach each of the claimed intended uses (cl.52-55), or the claimed molecular weights. However, the intended use of the claimed composition does not patentably distinguish the composition, per se, since such undisclosed use is inherent in the reference composition. In order to be limiting, the intended use must create a structural difference between the claimed composition and the composition of the prior art. In the instant case, the intended use fails to create a structural difference, thus, the intended use is not limiting. Please note that when applicant claims a composition in terms of function, and the composition of the prior art appears to be the same, the Examiner may make rejections under both 35 U.S.C 102 and 103 (MPEP 2112). Regarding the molecular weights, it is well within the purview of one of ordinary skill in the art to optimize the result effective variable such as molecular weight as a matter of routine experimentation. Thus, one of ordinary skill in the art would have been motivated by routine practice to optimize the various parameters of the HA ester derivatives with a reasonable expectation for successfully practicing the methods of Angele.

Application/Control Number: 10/590,250 Page 5

Art Unit: 1651

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth A. Davis whose telephone number is 571-272-0915. The examiner can normally be reached on M-F 7:00 -3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ruth A. Davis/ Primary Examiner, Art Unit 1651

November 23, 2009